MASTER OF SCIENCE
IN
LEADERSHIP AND HUMAN
RESOURCE DEVELOPMENT

THE UTILITY OF THE MYERS-BRIGGS TYPE INDICATOR AND THE STRONG INTEREST INVENTORY IN PREDICTING SERVICE COMMUNITY SELECTION AT THE UNITED STATES NAVAL ACADEMY

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This study provides information for those individuals responsible for guiding midshipmen's choice of naval service community. This research is focused on individuals who received their first community choice. Myers-Briggs Type Indicator results and career and technical interest measures based on the Strong Interest Inventory from the Naval Academy classes of 1998-2001 were analyzed. Discriminant analysis was used to identify variables that most strongly predicted differences in community choice.

This project was designed to provide company officers with the information needed to counsel midshipmen about the service communities available following graduation from the United States Naval Academy. The analysis demonstrates that while personality type, as measured by the Myers-Briggs, does affect the likelihood that an individual will select a particular community, other demographic information such as academic major, SAT scores, and Order of Merit have a much greater effect. The Career and Technical interest measures used by the Naval Academy's Admissions Board were found to have very little effect on community selection.

KEYWORDS: Personality and Vocational Interests, Psychological Type, Myers-Briggs Type Indicator, Strong Interest Inventory, Naval Service Community, Community Selection

THE ROLE OF PERSONALITY TYPE ON MINORITY ATTRITION AT THE U.S. NAVAL ACADEMY

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The attrition rate at the Naval Academy is higher for minority vs. non-minority students. This thesis examines the predictors of minority attrition at the Naval Academy. Three categories of predictor variables were examined: gender, academic measures, and Myers-Briggs Type Indicator (MBTI) personality type. Specifically, the study focuses on the theories of college student attrition based on data from Historical Black Colleges and Universities as well as traditional civilian universities. Data obtained from the Naval Academy's Institutional Research was analyzed. Results of the quantitative analysis show that the standardized test used in the admissions process (SAT) held little predictive value when examining minority attrition. A major finding drawn from Chi Square analysis of the MBTI Indicator revealed that several active personality types did better in terms of persistence at the Naval Academy. Recommendations addressed several areas of possible improvement and proposed further research regarding minority attrition.

KEYWORDS: Minority Attrition, Myers-Briggs Personality Type Indicator, Chi Square

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PERCEPTIONS OF THE ROLE OF THE COMPANY OFFICER AT THE UNITED STATES NAVAL ACADEMY FROM THE PERSPECTIVE OF SENIOR OFFICERS, BATTALION OFFICERS, COMPANY OFFICERS AND SENIOR ENLISTED LEADERS

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This thesis provides data on the perceptions of the role of the Company Officer at the United States Naval Academy (USNA) according to the perspectives of Senior Officers, Battalion Officers, Company Officers and Senior Enlisted Leaders. The author interviewed and surveyed 59 members of the chain-of-command using four interview questions and a trait questionnaire to address several research questions: the purpose of the role of the Company Officer, critical traits needed to perform the job, examples of effective Company Officer behavior, and skills learned by Company Officers. By comparing the interview and questionnaire responses the author determined that significant congruency exists throughout the chain-of-command. Study participants believe Company Officers are essential in developing midshipmen. Company Officers need to be honest, role models, mentors, approachable, loyal, respected, and consistent to be effective. By being involved in company activities and spending time with midshipmen Company Officers are best able to be effective. While fulfilling the role Company Officers learn leadership, personnel management and self-awareness. There are two divergent perspectives in the chain-of-command: 1) a minority of Senior Enlisted Leaders believe there are some low-quality officers serving as Company Officers, and 2) a minority of Company Officers feel they are not being professionally developed by their Battalion Officers. Each of the findings are discussed in detail, and quotations from interviews are provided to give the reader deeper insight. The author's conclusion is that there is significant congruency throughout the chain-of-command but there are small changes that need to be made to create a more effective and efficient leadership team.

KEYWORDS: Leadership, Followership, Leadership Development, Roles, Expectancies

A QUALITATIVE ANALYSIS OF THE PERFORMANCE MEASUREMENT AND OUTCOME MANAGEMENT PROCEDURES APPLIED TO THE PLEBE SUMMER PROGRAM AT THE UNITED STATES NAVAL ACADEMY

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The United States Naval Academy is the premier source of officers for the Naval service. It is a four-year total immersion educational experience designed to develop midshipmen morally, mentally, and physically and prepare them for service as either a Naval or Marine Corps officer. The Fourth-Class Indoctrination (Plebe Summer) program is the first military training evolution for most members of the incoming plebe class. The seven-week indoctrination course is intended to provide an introduction to military and academy culture as well as to prepare fourth-class midshipmen for integration into the brigade of midshipmen.

This research uses detailed literature reviews and expert interviews to identify the objectives and performance measurement procedures of Plebe Summer. Next it evaluates the performance measurement and outcome management procedures employed by the Naval Academy in assessing Plebe Summer success. Evaluated in this research are the objectives, outcomes, outcome indicators, data collection procedures, and benchmarks applied to the Plebe Summer program. The research indicates that a performance measurement and outcome management system can assist Naval Academy leaders in improving the quality of the Plebe Summer program

KEYWORDS: Performance Measurement, Outcome Management

LEADERSHIP AND HUMAN RESOURCE DEVELOPMENT

ANALYSIS OF DETERMINANTS OF TRAINING PERFORMANCE, RETENTION, AND
PROMOTION TO LIEUTENANT COMMANDER OF NAVAL FLIGHT OFFICERS
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The purpose of this research is to examine the cohort of Naval Flight Officers (NFOs) commissioned from 1983 to 1990 and analyze the determinants of successful career progression, as measured by patterns of training performance, retention, and promotion. Training performance is defined as NFOs successfully earning their "wings of gold." Retention is defined as remaining in the service beyond the minimum service requirements to the Lieutenant Commander (LCDR/O-4) screening. Promotion is defined as being selected for LCDR. Determinants examined include source of commission, demographics (ethnicity, gender, and age), profile of academic institution, undergraduate and graduate education, time to train, and community platform.

This study finds that the amount of training time NFOs require to earn their wings reflect their overall performance. This is evident for those who remain to the LCDR promotion board and actually promote. The longer it takes a NFO to earn wings following commissioning, the less likely the NFO will promote. Because training time is a significant factor, successfully completing flight school is key for long-term success as a NFO. Regarding success in flight school, both NROTC and OCS graduates have a more difficult time completing flight school than USNA graduates. Overall, the success of USNA graduates could be attributed to both the initial admissions screening process and the training received over four years at USNA.

Additional noteworthy results include the following. African-Americans are less likely to earn their wings. NROTC graduates are the least likely to promote to LCDR. Being married with children increases the probability of retention, and being married with or without children increases the probability of promotion. The older the NFO is at the time of commissioning, less likely they are to earn their wings, more likely to retain, and less likely to promote.

KEYWORDS: Naval Flight Officer (NFO), Retention, Training, Promotion, Aviation Determinants Flight School

A STATISTICAL ANALYSIS OF THE PERFORMANCE OF NAVAL ACADMEY GRADUATES
AT THE BASIC OFFICER COURSE
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This thesis examines the performance of Naval Academy Graduates at the Marine Corps' Basic Officer Course conducted at The Basic School in Quantico, Virginia. The study reviews the Marine Officer Commissioning and Training programs available and provides an overview of the mission and goals of Officer Candidates School and The Basic School. The study examines Marine Corps training programs used at the Naval Academy between 1988 and 1999 with an overview of Marine Corps exposure programs and Marine-specific training programs designed to prepare aspiring midshipmen for service in the Marine Corps. The analysis includes a review of the Naval Academy's service selection and service assignment processes. The models used in this study focus on the impact of Marine-specific summer training for Naval Academy midshipmen on class standing at The Basic School for newly commissioned Second Lieutenants who attended the Academy. Ordinary least squares estimation techniques provide the effects of the selected independent variables on students' success at The Basic School. The results of the study indicate that those completing the OCS/Bulldog summer training program had a significantly higher class standing at The Basic School than other Marine-specific summer training programs.

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THE UTILITY OF PERSONALITY MEASURES IN THE ADMISSIONS PROCESS AT THE UNITED STATES NAVAL ACADEMY

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This study examined the ability of three personality measures to predict midshipmen attrition at the United States Naval Academy. More specifically, the study examined the ability of the Myers-Briggs Type Indicator (MBTI) and the Personal History Questionnaire (PHQ) to replace the Career Interest Score of the Strong Interest Inventory in the Naval Academy admissions formula and to better predict overall, voluntary, academic, and performance/conduct attrition. The data used were from the Naval Academy classes of 1995 to 2000. Logistic regression analysis was done using just the classes of 1995-1999. The class of 2000 was used in an out-of-sample prediction to test the validity of the study's attrition model. Results showed that the Career Interest Score is unable to predict attrition. Additionally, the addition of the MBTI and PHQ improved the predictive ability of the admissions formula for two of the four attrition variables modeled. The model was most effective in predicting voluntary attrition. Recommendations are made regarding the United States Naval Academy admissions policy and for future research in the subject area.

ANALYSIS OF COMPANY OFFICER INFLUENCE ON MIDSHIPMEN SERVICE ASSIGNMENT

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This thesis explores the influence of Company Officers on midshipman service selection desires at the United States Naval Academy. This study looks at midshipman attraction to specific warfare communities through exposure to officers from each community. Four year groups from the Naval Academy were quantitatively analyzed to investigate the impact of the Company Officer upon midshipman service selection and to explore whether an individual is more likely to service select a warfare community that he/she is most exposed to by Company Officers while at the Naval Academy. Additionally, the Leadership, Education and Development (LEAD) Program was looked at to explore whether the Company Officers who graduated from the program were more likely than non-LEAD graduate Company Officers, to attract midshipmen to their respective warfare communities.

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**ADMISSIONS AND PLEBE YEAR DATA AS INDICATORS OF ACADEMIC SUCCESS
IN ENGINEERING MAJORS AT THE UNITED STATES NAVAL ACADEMY**
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This research analyzes the relationship between academic success in high school and at the freshman collegiate level and academic performance in engineering majors at the United States Naval Academy (USNA). The study developed predictive models on success and achievement in engineering by examining nine intellective and ten non-intellective variables. The purpose of the project is to contribute to the improvement of academic advising for students considering engineering majors and thus improve student retention. Regression models are estimated for USNA classes of 1997 through 2000 (N=1,648). Three models are estimated to predict completion of an engineering degree, completion of an engineering degree having achieved superior academics, and cumulative quality point rating. Analysis of various explanatory variables shows that a positive relationship exists between early academic success in math and science at the collegiate level and overall success in an engineering major. First semester academic quality point rating was the single most predictive variable in all models.

KEYWORDS: Academic Achievement, Academic Advising, Academic Persistence, Engineering Education

**THE EFFECT OF MARINE CORPS ENLISTED COMMISSIONING PROGRAMS ON OFFICER
RETENTION**
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This thesis estimates multivariate models to analyze the determinants of retention to ten years of commissioned service and retention until retirement eligibility of Marine Corps officers by commissioning program. Using data from the Marine Corps Commissioned Officer Accession Career file (MCCOAC), logistic regression models are specified to predict Marine Corps Officer retention behavior. The models specify retention as a function of commissioning program, The Basic School (TBS) graduation rank, General Classification Test (GCT) score, ethnicity, marital status and Military Occupational Specialty (MOS).

The findings reveal that those officers commissioned through the MECEP program were 55 percent more likely to stay in until their tenth year of service than officers commissioned via the United States Naval Academy. It was also found that there were no significant differences between commissioning programs in explaining retention-to-retirement behavior. Based on the results of the analysis, it is recommended that increasing the number of MECEP candidates may reduce officer attrition and increase the Marine Corps' return on investment in its commissioning programs.

KEYWORDS: Retention, Commissioning Sources, Accession Sources, Enlisted Commissioning Programs

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MENTORS IN THE CLASSROOM: AN EXPLORATORY QUALITATIVE STUDY
OF THE BELIEFS AND BEHAVIORS OF FACULTY MENTOR EXEMPLARS
AT THE UNITED STATES NAVAL ACADEMY

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This study investigated those beliefs and behaviors of exemplary faculty mentors for United States Naval Academy (USNA) Midshipmen. The mission of the USNA is to develop young men and women morally, physically, and mentally. A clear task of the USNA faculty is to be the principal tool in the academic development of the midshipmen. However, the faculty is also in a unique position to be instrumental in the moral and character development of midshipmen. This thesis focused on the mentor–protégé relationship from the faculty mentor's perspective and attempted to identify those beliefs and behaviors common among effective faculty mentors.

The following five propositions are put forward as results of this study: 1) Exemplary mentors appear to have high emotional receptivity; 2) The primary motivation of exemplary mentors is a strong desire to help others; 3) Exemplary mentors appear to possess strong relationship skills and employ those skills in their educational techniques; 4) Organizational factors can inhibit or promote mentoring within an academic environment; 5) Civilian faculty do not feel they were less influential than military instructors. Regarding the midshipmen, this study suggests that midshipmen do experience mentoring although not necessarily according to the classical definition. Furthermore, midshipmen are more likely to be mentored by faculty members that participate in extra-curricular activities outside of the classroom.

KEYWORDS: Mentoring, Mentoring and Midshipmen, Mentoring at the U.S. Naval Academy, Undergraduate Mentoring, Mentoring Military Officers in Training, Military Mentoring

THE EQUITY OF PUNISHMENT IN THE NAVAL ACADEMY CONDUCT SYSTEM: A
STATISTICAL ANALYSIS

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This thesis examines the equity of punishment awarded by the Naval Academy's Administrative Conduct System utilizing 7,704 conduct cases from the graduating classes of 1998 to 2001. Based on equity theory, the consistency of punishment is analyzed in terms of demerits awarded to athletes, minorities, women, and different midshipmen classes. A multiple linear regression model is used to identify statistically significant subgroups, while controlling for level of offense and whether or not a secondary offense was included with the primary offense. Statistically significant subgroups in order of precedence are all classes, women, and minorities. Furthermore, the regression results are compared to survey questions regarding midshipmen's perceptions of the Conduct System to determine if congruency exists between the perceptions and the statistics. Results of this study will be used to create awareness to disparities in the awarding of punishment and to make recommendations for further studies.

Keywords: U.S. Naval Academy, Conduct System, Punishment, Midshipmen, Equity

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**ANALYZING THE EFFECTS OF NETWORK CENTRIC WARFARE
ON WARFIGHTER EMPOWERMENT**
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Network Centric Warfare (NCW) is a conceptual warfighting paradigm that seeks to exploit the advantages of information technologies to develop information superiority, leading to battlefield awareness and later escalating to battlefield dominance during future military operations. While military forces are currently experimenting within the framework of this new concept, efforts are being made to harness the opportunities made available by implementing network-centric concepts to increased operational efficiency and enhance combat power effectiveness so that optimal desired results may be achieved. However, the modern Marine Corps is comfortable and quite successful implementing its current, subordinate empowering doctrine of Maneuver Warfare, which emphasis the human behavioral aspects of warfare over technology implementation. The issue, then, is: how will Marine Corps warfighting performance be affected by changes in doctrine driven by advances in and the implementation of technology. This thesis seeks to answer this question through exploratory research of theoretical concepts on organizational performance, an examination of current and future warfighting concepts, and an assessment of the practicality of successfully implementing future warfighting concepts based upon the principles of a theoretical framework. Recommendations are provided for creation of a metric that will adequately assess the performance of empowered warfighters in a Network Centric Warfare environment.

KEYWORDS: Network Centric Warfare, Network-Centric Warfare, Netcentric Warfare, NCW, Information Technology, Command and Control

**NAVAL ACADEMY ATHLETIC PROGRAMS AS PREDICTORS OF MIDSHIPMEN
ACADEMIC AND MILITARY PERFORMANCE**
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This research analyzes the impact of the United States Naval Academy's club sport and varsity athletic programs on midshipman academic and military performance. Linear regression models are developed for the Naval Academy classes of 1998 and 1999 to analyze the effect of explanatory variables on midshipmen Academic Quality Point Rating (AQPR) and Military Quality Point Rating (MQPR). It is important to understand the relationship between athletic programs and academic and military performance so that the Academy leadership can objectively evaluate and maximize the positive effects these programs have on preparing midshipmen to assume the responsibilities that await them upon graduation. The study concludes that sufficient evidence exists to suggest that the United States Naval Academy should continue to foster strong varsity and club sport athletic programs. Beyond the officer-like qualities that are directly taught on the athletic field, significant participation in these programs does enhance the military performance of midshipman. Specifically, MQPR was positively affected when a student-athlete won a letter in either a varsity or club sport. There is also some evidence to suggest that performance in the classroom may benefit as well, but it is not as convincing as in the case of military performance. Specifically, when all valid AQPRs are used in the analysis, AQPR was positively affected when a student-athlete won a letter in either a varsity or club sport. When only graduates were used, however, the significance levels of the coefficients were not above the threshold, and no conclusion could be made regarding the effect of letter winning on AQPR.

KEYWORDS: Naval Academy, Military Performance, Academic Performance, Athletics